

BERNHARDT'S STOVE.

TO THE EDITOR OF THE BUILDER.

SIR,—I am happy to find by facts, that your valuable journal is not only read and esteemed by architects, builders, and the students and workmen in the building line, but by gentlemen in other stations. I have had the pleasure to find that some of the aldermen of the city of London are not unacquainted with the contents of your journal.

To prove that the foregoing statement is correct, I think it my duty, in answer to Mr. T. P. Hope's letter, to inform the readers of your journal, and particularly Mr. H., that, shortly after the publication of his plans and sections in *THE BUILDER*, one of the aldermen, very humanely indeed, gave orders to relieve the poor prisoners in Whitecross-street Prison, from the suffocating atmosphere in their wards, by introducing the ventilation plan (my patent-right) so liberally offered to the public at large, by Mr. Hope. A Mr. Dean undertook the task, and had three cylinders of plate-iron erected, in the centre of the ward No. 7, to the height of the room, which were fixed upon cold air flues, constructed for the purpose, below the floor of the said ward.

These cylinders are perforated at the top, so that the cool air from the outside escapes above head in the room (by the same principle that I introduced in my ventilation plan in the Earl of Lovelace's mansion, and in the Committee and dining rooms in the House of Commons, six years ago). To each of the above-mentioned cylinders are fixed square flues of the same metal, close to the ceiling, which reach through the wall; and outside the building is a cylindrical tube of considerable height, fixed upon the square flue, for the purpose of carrying the foul air from the room into the open air.

A friend of mine, who has some knowledge of my patent, came to my house and invited me to accompany him to the said prison, and there I found what I have stated. Some of the prisoners complained of the obstruction of the cylinders, which are fixed in the centre of the small passage between the tables.

I told them and my friend, that the obstruction would not remain long, as I was quite certain the cylinders would not ventilate the room, and that the authorities would, therefore, very soon give orders for them to be taken down. Last Saturday, I went to Guildhall and saw the alderman who I was told had ordered Mr. Dean to erect the said ventilating apparatus, but learned from him, that not he but another alderman had given the orders, and that the whole should be removed.

I think it my duty to state this to the readers of this journal, and to beg of the editor the favour to furnish his readers with copies of the letters from architects, physicians, &c., wherein it is stated, that my system of ventilation is perfect, when erected under my direction, which, I hope, will be a sufficient reason for refusing to comply with the wishes of Mr. Hope to give drawings and explanations of my patent apparatus and designs, at present. I fear the public might be deceived by men quite unacquainted with the laws of nature controlling fire and air, and my science and myself might be blamed for the blunders of ignorant imitators.

Mr. Hope seems to imagine that my patent contains only one apparatus, as shown in No. 9 of *THE BUILDER*. He is, therefore, right in saying "that there is not the least similarity whatever between my patent Britannia fire-grate and the grate shown by him; but if he will see the fire-grate fixed in the warehouse of Messrs. Fry and Co., No. 130, Fenchurch-street, City, or see my specification, which was enrolled in June, 1835, he will find that I have secured to myself the right of warming and ventilating with open fire-grates one or several rooms, and that the construction of the fire-grate, chambers, and flues, are of different dimensions to those used before the time of my patent specification.

If the readers of this journal will peruse the Report of the Select Committee of the House of Commons on the ventilation of the Houses of Parliament in 1835, they will find that the first class of scientific men in this country were unable to mention one single room which was well warmed and ventilated; and if the editor will be kind enough to insert the copies of letters I have before alluded to, and the following extract from the *Polytechnic Journal*, No. 1, the public will find that my statements are true, and that, on the continent as well, no man existed who was able to warm and ventilate rooms or buildings as perfectly as I have done.

Extract from the *Polytechnic Journal*, No. 1, pages 76-77:—

"It is not our intention to prolong this article by entering into any critical examination of Mr. Bernhardt's claim to be the discoverer of a new law of nature. We are saved that trouble by the book of certificates, one or two of which we shall presently

quote. But we cannot refrain from calling attention to the first question put by Mr. Bernhardt on this smoky subject. He asks—

"What are those fundamental scientific principles according to which all construction for fires, without any exception, may be executed without previous experiment, in the manner best adapted to their intended purpose? Does anybody understand these fundamental principles, we ask?"

"Knowing what we do about 'certificates' generally, we place little faith in documents of that nature. The following, however, are out of the common way:—

"By his Majesty's command this testimony is given to the architect, Mr. F. A. Bernhardt, that he has remedied the inconvenience of smoky chimneys in the royal palace as well as in private houses, although all former attempts to do so have proved ineffectual.

(Signed)

V. SHUCKMANN,

Minister for Commercial Affairs.

Berlin, 22nd April, 1831."

"In my dwelling-house, now built four years ago, Louise Strasse, No. 31, there diffused itself, upon the lighting of the fire, so much smoke in the kitchen that the tenants were not able to bear it. On making inquiries about the remedying of this nuisance with several competent judges, I got from a royal councillor in architecture the mortifying information, that with respect to the doing away with the smoke there existed no fixed knowledge as yet, and that the cure depended upon chance only. That this object, which appears as yet impossible to other architects and technical connoisseurs, is an easy thing for the architect, Mr. Bernhardt, he has proved clearly and plainly in my house, for, without making the least trial, he has at once got the apartments given over to him freed from all smoke. In order to be useful to the public in this respect, I think it my duty to make the foregoing known to the same.

P. LAUTNER,

Royal Confidential Secretary in the Chief Administration of the Public Debt.

Berlin, 31st January, 1831."

Foley-place, Wednesday morning.

"SIR,—I am happy to inform you that Mr. Currie is satisfied that nothing can answer better than the means you have applied for warming his house at East Horsley. If you will call here tomorrow, I will give you an order for the receipt of the amount of your contract in respect thereof.

Yours faithfully,

CHARLES BARRY."

"The fire-places in the royal post-coach manufactory at Dusseldorf were formerly in such a state, that the dust and smoke proceeding from the smithies fell upon the lands and houses of the neighbours. The nuisance increased at length so much, that one of the neighbours instituted proceedings against the post department, in which the latter was condemned through all the courts to indemnify the plaintiff, and the factory was in danger of being compelled to suspend work. In order to prevent this evil, and a removal of the manufactory (which would certainly have also been very expensive), it was necessary to find means and apply them, by which the dust and smoke of the said factory should be turned away from the premises of the neighbours. This task, which was given to the architect, Mr. Bernhardt, he has satisfactorily performed (as is testified by the annexed document of the royal government of Dusseldorf, dated 2nd August, 1833) by means of his alterations and arrangements of the chimneys, with which I hereby make known to Mr. Bernhardt my particular satisfaction.

(Signed)

NAGLER, General Postmaster in chief, Director of the Post department in the Prussian States.

"Testimony for the architect, Mr. Bernhardt, at Dusseldorf, Frankfort-on-Maine, 8th Oct. 1833."

The above I hope and believe will be satisfactory to the greatest number of the readers of your valuable journal, and I shall be happy to lay before the same, as soon as possible, a drawing of the smoke-purifying apparatus, as mentioned in the last testimonial, which now has been ten years in operation, to the satisfaction of all parties; and I will shew to the public the possibility that the London nuisance, the soot, which now blackens the faces and dresses in the streets, and goods and furniture in the apartments, may be collected in chambers and flues above the roofs, and sold to the gardeners and agriculturists for a considerable price. If this were done, the atmosphere in London would be at least 80 per cent. better than at present; and the use of the soot, as stated, would produce a considerable quantity of food for the

people in London; and the health of the inhabitants of the metropolis be improved in a very high degree. Through another drawing, from a chimney erected according to the principles of my invention in the royal palace at Potsdam in Prussia, I am able to satisfy the public that there is no necessity for building a chimney for every fire-place, but that one chimney is sufficient for ten and more fire-places, if the fire-places and chimneys are constructed to my plan. In buildings thus erected, the atmosphere will be and always remain wholesome in every apartment, from the basement story to the roof; and such buildings can never be set on fire by fire-places constructed to my order. The public may now have and use gas-lights in old and new buildings, and in the most elegant drawing-rooms, &c., without the least inconveniences from the air from the flames, and without the least danger of fire or explosion. The roofs of buildings may be flat, and much superior to all roofing in use, on account of simplicity, economy, and durability. The said roofs may be made of copper, cast or wrought iron, glass, zinc, lead, cement, slate, or earthenware. The said roofs may be made so flat, that the inhabitants of a street with such roofs may go all along the roofs from one end of the street to the other end. Chimneys constructed in accordance to the laws of nature require no elevations above the roof, no chimney-pots, no pipes, no cowls, &c.

Having learned that many new buildings and new streets, &c., are in contemplation to be built, and knowing that the intention of this Journal is to make the community acquainted with that which is useful to them, I beg you will excuse when I intrude upon your time and space in your admirable paper.

I shall be happy to receive or to meet any of your subscribers or friends of arts, science, and improvements, and to grant licences to persons who are willing to introduce my patent warming and ventilating apparatus, as well as my patent gas-light to the public, as it was never my intention to interfere with the trade.

I am, Sir, your most obedient servant,

F. A. BERNHARDT.

2, Princes-street, Finsbury-square.

SURVEY OF LONDON.

THE subjoined letters, addressed to the Editor of the *Architect, Engineer, and Surveyor*, we readily extract:—

SIR,—The following letter was written two months since, with the intention of circulating it among the leading members of the professions, but having seen in the morning papers a paragraph intimating that an interview had been granted by Sir Robert Peel to several architects and surveyors, I presumed that the matter had been taken up by abler and more influential persons than myself.

The object and issue of that interview not being generally known, I have been unable to decide whether my ideas have really been anticipated or not, and am therefore induced to request that you will publish the letter which I had intended for private circulation only, that it may stimulate the professions to a united effort to prevent, if possible, a proceeding which will so injuriously affect their members.

I am, Sir, yours obediently,

20th April, 1843.

J. BAILEY DENTON.

(Copy of intended Circular.)

SIR,—The Commissioners appointed by Government for the examination of proposed metropolitan improvements, are now engaged in considering the expediency of an ordnance survey and map of London upon a large scale. It is considered arbitrary in the extreme, that at a time when regularly educated surveyors and architects would be glad of a compensating employment, a host of sappers and miners, foreigners to the profession, should be engaged to execute a work for which experienced professional men are more competent, and who have in their possession many valuable and correct surveys of large portions of the metropolis, which might be made available for the purpose of supplying details, both with economy and dispatch.

Should your opinion coincide with the above, I beg you will inform me of your willingness to attend a meeting at which a memorial will be drawn up, expressive of the opinion of the profession, to be presented to the Board of Commissioners.

I am, Sir, your obedient servant,

J. BAILEY DENTON.

MR. BRUNEL.—The loss of this eminent engineer has been threatened us, but we are delighted to say that sanguine hopes of his early recovery may be entertained. It appears that while endeavouring to amuse his own or some friend's children, by pretending to pass money from his mouth to his ear, he slipped a half-sovereign, which stuck in the *fracture*, and that the danger to his life has in consequence been most imminent for several days.